

Attorney Docket No.: JJJ-P06-504

- K1
- (1) a conserved C-terminal seven-cysteine skeleton 60% identical to residues 38-139 of SEQ ID NO: 5;
 - (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
 - (3) an amino acid sequence of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vg1, Vgr-1, BMP3, BMP5, or BMP6,
 - (4) a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,
 - (5) a sequence defined by OPX, SEQ ID NO: 29;
- wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.
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99. ~~(Amended)~~ A method for decreasing neuronal cell death associated with a chemical or physical injury, comprising contacting said neuronal cell with a morphogen comprising a dimeric protein with:

- K2
- (1) a conserved C-terminal seven-cysteine skeleton 60% identical to residues 38-139 of SEQ ID NO: 5;
 - (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
 - (3) an amino acid sequence of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vg1, Vgr-1, BMP3, BMP5, or BMP6,
 - (4) a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,
 - (5) a sequence defined by OPX, SEQ ID NO: 29;
- wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.
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- 105. **(Reiterated)** The method of claim 97 or 99, wherein the morphogen is human OP-1.
- 106. **(Reiterated)** The method of claim 97 or 99, wherein the morphogen is mouse OP-1.
- 107. **(Reiterated)** The method of claim 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, BMP2A, BMP2B, Vg1, Vgr-1, BMP5, or BMP6.
- 108. **(Reiterated)** The method of claim 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, BMP5, or BMP6.

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The claims presented above incorporate changes as indicated by the marked-up versions below.

97. (Amended) A method for decreasing neuronal cell death associated with a neuropathy, comprising contacting said neuronal cell with a morphogen comprising a dimeric protein with:

- (1) a conserved C-terminal seven-cysteine skeleton 60% identical to residues 38-139 of SEQ ID NO: 5;
- (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
- (3) an amino acid sequence of selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and or BMP6,
- (4) a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,
- (5) a sequence defined by OPX, SEQ ID NO: 29;

wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.

99. (Amended) A method for decreasing neuronal cell death associated with a chemical or physical injury, comprising contacting said neuronal cell with a morphogen comprising a dimeric protein with:

- (1) a conserved C-terminal seven-cysteine skeleton 60% identical to residues 38-139 of SEQ ID NO: 5;
- (2) a conserved C-terminal seven-cysteine skeleton 70% homologous to residues 38-139 of SEQ ID NO: 5;
- (3) an amino acid sequence of selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and or BMP6,
- (4) a sequence defined by Generic Sequence 6, SEQ ID NO: 31; or,
- (5) a sequence defined by OPX, SEQ ID NO: 29;

wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.